

TRANSFUSION TODAY

Transfusion Today | Number 111, June 2017



Blood Donors and Blood Donation

Guangzhou
Congress 2017

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of Paul Engelfriet

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Correction TT110: ISBT wishes to correct the Eastern Mediterranean regional article in the Transfusion Today Issue number 110, March 2017 - "Efforts for Transfusion Competence in Iran". The following five authors were accidentally omitted : Pourfathollah A.A, Maghsudlu M, Karimi Gh, Hadipour Dehshai M, Tabriz-Namini M. ISBT wishes to extend their sincere apologies to all authors for this omission.

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Gold members



Judith Chapman

Editorial

June 14 is celebrated worldwide as World Blood Donor Day (WBDD). This year the WBDD campaign will focus on blood donation in emergencies. In a crisis or emergency situation the natural human response is "What can I do? How can I help?" therefore the slogan is "What can you do?" with the secondary message "Give blood. Give now. Give often".

ISBT is one of the four founding organisations of WBDD and it is our desire to ensure that WBDD continues to be successful and for there to be an annual recognition of the self-sacrifice of blood donors and to alert people globally about the need for more blood donors to come forward. In recognition of blood donors the focus section of this June issue includes articles on addressing blood donor fear, family donors, blood donor campaigns and blood donor health.

The Central Office staff is gearing up for the 27th Regional congress of the ISBT in Copenhagen, we hope that many of you will be joining us at the congress. The scientific programme is packed with new topics and new speakers to ISBT. We look forward to welcoming you on the ISBT booth. We are also preparing for the 28th Regional congress in Guangzhou, China. You can find more details about the Guangzhou congress and the topics of the scientific programme in this issue and online at www.isbtweb.org/guangzhou. We hope many of you from the Western Pacific and Asia regions will join us in Guangzhou.



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We can and should do more to address blood donor fear

For at least 75 years, fear and anxiety have been recognized as predictors of vasovagal syncope among blood donors.¹ Prevention of these faint and pre-faint reactions is important not only because they are by far the most common adverse event that a donor is likely to experience, but also because they discourage donors from providing another donation.² Their impact may also extend beyond the individual donor, as fainters may dissuade others in their social circle from donating blood when they relate their own experience.



Although there are other known predictors of blood donor faint and pre-faint reactions, such as estimated blood volume and donation history, fear is the strongest predictor of reactions and is the only predictor that can be addressed by a brief intervention.^{3,4} For example, prospective blood donors report significant decreases in anxiety when they receive educational materials that suggest ways to cope with common concerns about blood, needles, pain, and fainting. After receiving these coping materials they also report a stronger intention to donate and are more likely to volunteer and follow through with a donation.^{5,6} Interventions that are designed to reduce anxiety

during the blood collection process, such as audiovisual distraction, have also been associated with reductions in faint and pre-faint symptoms.⁷ With the growth of virtual reality and immersive technology there is little doubt that more effective distractors are on the way. Finally, there is evidence that donor anxiety can be reduced with a post-donation motivational interview, suggesting that we can improve retention if we address any lingering concerns that donors may have.⁸

Despite the promise offered by interventions that target fear and anxiety, these interventions can only work if we are willing to ask donors about their concerns. Most experienced blood donors have little or no fear of the donation process, and therefore it is not efficient to treat them as if they do. However, many prospective donors and first-time donors do have fears and given this fact it is wise to assess their concerns so that they can be addressed. There is evidence that a single question “How afraid are you of having blood drawn from your arm?” provides a good starting point for such an assessment, as those who report any level of fear are more likely to experience a faint or pre-faint reaction and are less likely to provide a future donation.^{3,4,9} Ideally, if the donor reports any fear then an additional question should follow that narrows down the specific nature of the fear. Although this is a reasonable approach to maximize donor satisfaction, safety, and retention, in practice there is a deep reticence among blood collections staff to ask such questions. This reticence is due to a belief that simply asking about fear causes the donor distress and contributes to increased risk for adverse reactions. This is reminiscent of the outdated and disproven notion that we should not ask people about suicide because it leads to suicidal thoughts.¹⁰ Indeed, the belief that asking about fear increases fainting has been shown to be inaccurate when tested in studies of community blood donors and high school donors.^{3,4} As professionals dedicated to promoting a safe and satisfying blood donation experience, it is time to put aside our fears and to start talking to donors about theirs.

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Encouraging family donors in southern Ghana to give blood voluntarily

Background

Family replacement donors, who donate blood only in response to need by family members or friends, contribute about 47% of blood donations collected by the Southern Area Blood Centre (SABC) of the National Blood Service Ghana (NBSG). Family replacement donors form an important target population that could be encouraged to donate blood as regular voluntary non-remunerated blood donors. In January 2015, the NBSG received funding from the Global Blood Fund (GBF) through its Small Grant Award to support a strategy to convert family replacement donors. The GBF Small Grants Program aimed to support blood collection agencies to recruit and retain blood donors. In Ghana, the funds were used to support an initiative to develop and use information, education and communication materials as a means of encouraging family replacement donors who visit one of the static donor clinics of the SABC located within the Korlebu Teaching Hospital to donate blood on voluntary basis.

Activities of the initiative

The information, education and communication materials were used to educate family replacement donors who visit the fixed blood donation clinic to donate, on the importance of voluntary blood donation. These included:

- i. Pull up banners at the donor waiting area of the static clinic with specific messages targeted at urging family replacement donors to consider returning to donate again voluntarily.
- ii. “Frequently asked questions” leaflets, with information aimed at educating donors on the importance and benefits of being a regular voluntary donor, which are given to family replacement donors after donating blood. The leaflets are also used to receive feedback from donors who were interested in coming back to donate blood voluntarily.
- iii. A television set, mounted at the fixed donor clinic, to show educational videos that are focused on why one should be a voluntary donor. The videos also give tips for a good donation experience and include a passionate appeal for more voluntary blood donations.

Opportunities

The initiative has been sustained. The SABC blood collection staff continue to discuss voluntary blood donation with family replacement donors who visit the donor clinics to donate blood. The NBSG will also continue and expand long-term strategies of engaging family replacement donors with the aim of converting them to voluntary blood donors. These include:

- i. continuously improving donor care and donor welfare at the donor clinics;
- ii. strengthening the current activity of following up on family replacement donors to seek their willingness to become regular voluntary donors;
- iii. working with hospitals to establish an effective system to recall family replacement donors who are willing to give blood again, when they are due; and



Pull-up banners mounted at the reception area of the fixed donor clinic

- iv. educating medical, nursing and laboratory staff in hospitals and health centres, where blood is collected, about the advantages of voluntary blood donation over family replacement donation and encouraging them to discuss voluntary blood donation with family replacement donors who donate blood at the health facilities.

Although the initiative has not been directly evaluated, voluntary blood donations collected by the SABC increased from about 46.9% in 2014 to 53% in 2016.

Conclusion

Eligible family replacement donors constitute a significant target population for potential voluntary donations since they may have experienced the urgent need for blood, and, therefore, may appreciate how important it is for safe blood to be readily available when blood transfusion is required for a family member or friend. Implementing and sustaining initiatives to engage this group of donors will help increase voluntary blood donations in Ghana.



Jon Latham
Assistant Director for Donor Services
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Transplant

The missing types campaign

In 2015 NHSBT launched one of the most successful NHS campaigns - Missing Types. The main premise behind the campaign was that the previous decade had seen a 40% decline in new donors coming forward and we needed to create awareness around this issue. We decided to use the simple mechanic of removing the letters (representing the main four blood groups) A,O,B from individuals and organizations names and to present this through a targeted PR and Social Media campaign.

The response to this campaign was amazing with widespread coverage across national TV, radio and press, and by the end of the week over 1000 well known organizations had voluntarily dropped their letters and posted their support. More importantly by the end of the ten day campaign over 30,000 members of the public had signed up to be new blood donors, 3 times more than any previous campaign.

But what's next?



The answer was to take this great idea to the international stage. On August 16th 2016, across a 24 hour period, 21 countries (reaching out to over a billion of the world's population) undertook a synchronized marketing campaign and removed the letters from famous locations, famous

brands and famous celebrities. This was supported by a whole range of events utilising the same approach all asking for new people to come forward to donate.

There were far too many to mention, but some of the favourite activities were as follows:

- Letters disappeared from iconic locations Sydney Opera House, Tokyo Tower, Singapore Botanical Gardens, Table Mountain, Times Square, BAFTA building, Brussels Airport,

Llanfairpwllgwyngyllgogerychwymdrobwillantysiliogogoch station in Wales etc.

- Royal Mail created a special International missing type logo which featured on 200 million letters and parcels
- New York Stock Exchange closed its session by having one of the International Missing Types patients make a speech and ring the bell
- Thousands of brands participated across the world including Google, Microsoft, Qantas, Samsung, Royal Australian Navy, Toronto Police, Coca-Cola, Brussels International Airport, Tesco etc.
- Hundreds of Influencers included Olivia Newton John, Jamie Lee Curtis, Neighbours Cast, teams such as Glasgow Rangers, Cincinnati Bengals, Boston Red Sox IFK Gothenburg, great Western Sydney Giants, and Denver Broncos
- National newspapers changed their mastheads; The Irish Mirror, Sydney Morning Herald, Svenska Dagbladet, and many more
- Australian Newsreaders joined together to promote the campaign by withdrawing their letters on their names
- TV commercial in England with the help from Brand partners
- TFL produced an online London Tube map with the letters missing
- A video that had patients thanking donors in their own language from Finnish, Swahili, Welsh and many more diverse tongues

And lots more...

The response was immediate with the campaign trending across ten countries and in the top ten in the world despite competing with the Olympics. Tens of thousands new donors signed up who will be saving the lives of hundreds of thousands of patients in the years to come. The legacy of missing types continues with more and more countries using the approach to create awareness around the different blood groups. Not bad for what was originally a small marketing idea put together in a small London office!



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Mindy Goldman

Medical Director Donor and Clinical Services Canadian Blood Services, Ottawa, Canada



Peter van den Burg

Department of Transfusion Medicine, Sanquin Blood Supply, Amsterdam, The Netherlands

Do we know if we deplete or treat the donor's iron?

Introduction

This month we celebrate the biggest transfusion barrier discovered in 1900 by Karl Landsteiner: ABO blood types. Before 1900 we believed that bleeding was beneficial to all patients, now we know it could help in hemochromatosis. For nearly 100 years we thought that checking haemoglobin was sufficient to protect donor health, now we know we deplete our donors of iron in spite of normal haemoglobin levels.

Iron deficiency in donors

Iron deficiency is a global health problem, particularly in children and women of childbearing age. A considerable amount of iron is lost in each whole blood donation, and the recent US Haemoglobin and Iron Recovery Study (HEIRS) demonstrated that without iron supplementation, an interdonation interval of 56, 84, or even 112 days is insufficient for most donors to recover their pre-donation iron stores. It is therefore not surprising that iron deficiency (as determined by ferritin measurement) has been found to be particularly common in frequent donors (females donating more than once a year, males donating more than twice a year) in studies performed in many countries.

If on-going iron loss continues, donors may develop iron deficiency anaemia, and eventually fail their pre-donation haemoglobin screen. The health effects associated with iron deficiency anaemia include fatigue, reduced exercise tolerance, craving for unusual substances (pica), and difficulty concentrating. Iron deficiency anaemia in pregnancy has been associated with poor outcomes for mother and baby, and in children and teens may have negative effects on brain development. Although few studies have been done on otherwise healthy blood donors, it is possible that iron deficiency alone, before the development of anaemia, is also associated with some of these negative health consequences. An updated

recent AABB Association Bulletin on this topic outlines possible strategies to limit or prevent iron deficiency in our donors. These include better donor education, offering donors iron supplements or vouchers to obtain iron, reducing donation frequency, and measuring ferritin levels in all or a subset of donors. A combination of these strategies has been shown to be effective in decreasing iron deficiency in several studies, and in programs implemented by blood centres in Denmark and Switzerland.

Iron overload in donors

In contrast to the iron depleted blood donors, some donors have excess iron: hemochromatosis. Hereditary hemochromatosis (HH) is one of the most frequent hereditary diseases, affecting 1-3% of Caucasians, and leads to impairment of organ structure and function, especially the liver, pancreas, heart, and pituitary gland. Most carriers of the HH gene are not ill, so you can be sure they show up as healthy blood donors!

Blood establishments have a role in maintaining the health of people with the HH gene. This can be an active, therapeutic role, including whole blood donation or even erythrocytapheresis. There is no evidence that the blood from patients with HH is harmful for recipients. On the other hand, donation as treatment of HH is no longer a voluntary non-remunerated donation, and therefore in conflict with our guidelines. There is no worldwide consensus with respect to the policies of the use of blood of donors/patients treated for HH. To complicate this discussion, all blood establishments have, because of the high frequency, many undiagnosed carriers of the HH gene. We collect this blood every day and thereby treat these donors/patients without realising it. We do this since donation and transfusion became more common after the discovery of Karl Landsteiner, and yet we have never reported side effects in recipients of blood drawn for donors with the HH gene.

Jhi-Young Yoon

Head Global Cooperation Team Blood
Service Headquarters The Republic
of Korea National Red Cross

Blood Donation Promotion in Korean Red Cross

Blood donation is the only way to save the lives of patients who are in need of blood transfusion. In 1981, the Korean government has entrusted the National Blood Service to the Republic of Korea National Red Cross (KNRC) under the Presidential Decree No. 10285. Since then, the KNRC Blood Services has made efforts to meet the national blood demand and at the same time commit ourselves to best practices to make blood donation and transfusion safe for both donors and patients. In doing so, the fundamental principle of the KNRC Blood Services has always been non-remunerated voluntary blood donation.

One major characteristic of our blood donor demographics is that approximately 70% of our blood donors are in their teens and 20s. In the era of a rapidly aging population and declining birth rate, this dependence on young donors is very challenging. Just last year, we experienced a drop of young donors of nearly 5%. To cope with this challenge, it is of utmost importance for us to recruit even more young donors and retain them in the donor pool.

To recruit more young donors, we focus on blood donation education and promotion with elementary, middle and high school students as the target. The KNRC Blood Services operates the 'ABO Blood Exhibition Hall', which is located in Gwacheon National Science Museum. This hall provides information about blood donation and experiential learning platforms such as donating blood in a virtual reality donation room and observing blood cells through a kaleidoscope. Students can also explore the inside of a blood vessel by taking a ride on a blood vessel experience rider. With this experiential learning, potential blood donors can acquire in-depth understanding of blood donation.

Since 2012, we also have a program called 'Red Campaigners'. The Red Campaigners are composed of high school students and they promote blood donation at their schools and in the community. The purpose of this program is to engage young people to increase the awareness on the significance of blood donation.

To retain young donors and to recruit more middle-aged blood donors, we recruit ABO Friends among individual donors. By becoming ABO Friends, donors pledge to donate blood regularly. Currently, approximately 780,000 blood donors are registered as ABO Friends and their participation rate is very high as their donation accounts for nearly 40% of the total annual blood donation.

We also develop new non-profit partnerships with organizations and strengthen existing ones to engage them in blood donation at a corporate level. These partner organizations pledge to donate blood regularly and foster the culture of blood donation. We put an effort in finding more organizations that participate in blood donation regularly and recruiting middle-aged blood donor groups as well.

These days, blood services around the globe are experiencing more difficulties in recruiting donors to meet the demand. But with these efforts, we, the KNRC Blood Services, expect to continue to ensure stable supply of safe blood.



Ravi Reddy

We are well into the 2017/2018 financial year which started in April and I am really looking forward to the 27th Regional Congress in Copenhagen where we can network with our peers and also enjoy the scientific sessions, exhibits and social events. We have introduced a revitalized Affiliate membership offering which we hope will be well received by National Societies and Blood Services around the world. Through this partnership, we are really looking to make some of the educational material available on the e-portal to a wider audience that are not yet members of ISBT. We are all aware of the importance of stakeholder relations and we are constantly striving to improve communication with members, our corporate partners, working parties and affiliate members. Management office has implemented a number of initiatives in this regard and I encourage all of you to actively participate in the community forums and webinars. We welcome any suggestions you may have for further improving interaction and communication.

This month's focus is on Donors and Donations, a topic that has vastly different relevance depending where in the world one is practicing the discipline. In the developed countries we have seen a gradual decline in blood donation in many countries as a result of patient blood management interventions and more restrictive use of blood, while in many developing countries the number of blood donations collected is not adequate to meet demand and blood is mainly used for emergency and acute cases needing transfusion.

Much has been written and advocated about collecting blood from voluntary non remunerated (repeat) donors as there is ample data that these are low risk donors and 100% voluntary blood donation is not an issue in high and many middle income

countries. Yet recent WHO data shows that family replacement donations are still very prevalent in many parts of the world and also where developing countries convert to voluntary donation, a large number of these donors are one time donors and from a safety perspective are not necessarily lower risk than family replacement donors. The 2013 survey of blood availability in the WHO Afro region indicates that 33% of blood collected is from family replacement donors and on average only 4.7 units of blood are collected per 1 000 population (much less than the WHO guideline of 10/1 000).

There is still much to do to achieve sufficient donations from voluntary donors and the challenge is how we as individuals and members of societies can contribute to education initiatives and infrastructure development to make this a reality. I believe that collectively and with a focused approach we can make a difference as there are many success stories such as Ethiopia and Vietnam. The single major constraint is sufficient funding to initiate recruitment and retention programmes and governments need to be lobbied on the importance of sufficient, safe blood to the health of the nation.

Donor health is also very topical currently, especially pertaining to issues related to increased donation frequency and possible harm to some donors due to iron deficiency. There is little doubt that as countries, such as Canada, roll out strategies to limit iron deficiency by introducing iron supplementation or increasing the interval between donations, there will be additional learnings that can be adopted by those countries that are currently simply battling to find sufficient donors.

Ravi Reddy

Welcome to our new members

(March 2017 - May 2017)

Africa

- **CAMAROOON:** Claude Bertrand Tayou Tagny
- **NIGERIA:** Esther Obi
- **SOUTH AFRICA:** Morne Toms, Karin van den Berg, Charl Coleman, Pheello Lethola, Ute Jentsch

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- **COLOMBIA:** José Arnulfo Pérez Carrillo
- **PERU:** Viviana Gisella Romero Flores
- **UNITED STATES:** Brie Stotler, Marisa Pearce, Vanessa Bres, Susan Yonemura, Lina Dimberg, Jens Jorgensen, Leslie Silberstein, Anthony Pare, Joseph Wycallis, Mark Hillam
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- **GREECE:** Nocolas Epifanis, Aikaterini Leivadiotaki
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- **ITALY:** Giorgio Gandini, Serelina Coluzzi, Gaspere Michelle Leonardi, Maddalena Maresca, Roberto Reverberi
- **KOSOVO:** Hysen Sadriu, Idriz Merovci, Bukurije Zhubi
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The membership year 2017-2018 started on April 1, 2017. If you have not done so already we happily invite you to renew your membership before June 30, 2017. This will give you the opportunity to continue to connect and participate in our growing transfusion medicine community. Anyone who has not renewed by June 30, 2017 will be removed from the membership and unfortunately will no longer receive the benefits of ISBT membership.

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Five steps to renewal

1. Log in to MyISBT on the ISBT website with your current email address and password.
2. Go to "Membership & Payments"
3. View your outstanding membership invoices. You can download and print your invoices if you wish to.
4. Complete your payment through creditcard, paypal, iDeal or recurring debit (depending on your country of residence). If you are not able to pay through any of the listed options, e-mail our membership department (membership@isbtweb.org) to arrange for a bank transfer.

5. Verify / review your personal details under 'Edit Profile' to ensure you can continue to benefit from all the ISBT Membership privileges.

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Questions?

Most of the answers you can find at our Frequently Asked Questions on the ISBT website. If you have any other questions, please send an email to office@isbtweb.org.

We are looking forward to welcoming you in the new membership year!

Team ISBT



Ellen van der Schoot

Head of the department of Experimental Immunohaematology, Sanquin, Amsterdam, The Netherlands



Henk Reesink

Associate Professor in the Department of Gastroenterology and Hepatology of the Academic Medical Center, University of Amsterdam, The Netherlands.

In Memory of Paul Engelfriet

Paul's impressive working career started in 1959 at the Department of Immunohematology of the Central Laboratory of The Netherlands Red Cross Blood Transfusion Service (CLB), which later became integrated in Sanquin Blood Services The Netherlands. Noteworthy was his discussion with Professor J.J. van Loghem, his former boss, who first was not very impressed with his CV, until Paul stated that for several years he was the figure-skating champion of The Netherlands, after which he was accepted for the job.

When he started the laboratory of Immunohematology was a small diagnostic department using basic serological techniques. Under his leadership and thanks to his guidance the department became an expanding research group, applying all kinds of technologies. The development and implementation of the antibody dependent cytotoxicity test (ADCC) to recognize foetuses at high risk for haemolytic disease of the fetus and newborn (HDFN) and the Platelet Specific Immunofluorescence Test (PSIFT) in thrombocytopenia are examples of his major contributions to the field of immunohematology. All his co-workers have greatly benefit from his unprecedented, thorough and wide knowledge, his international network and also from

his outstanding writing capabilities. Although he retired in 1992, more than 25 years ago, he was still regularly at the lab to be of help and support until a few years ago.

From 1965-1988 he also became the head of the Military Blood Transfusion Service in the rank of colonel. In 1977 he was appointed as Professor in Immunohematology at the University of Amsterdam. Paul was a member of numerous committees in his expert field, namely for many years (1970-1992) of the Council of Europe. He was Editor in Chief and later section editor of International Forums of Vox Sanguinis (1996-2013). He (co) authored more than 300 scientific publications and supervised more than 30 thesis's. He received several International awards, including Emily Cooley Award (1981), James Blundell Award (BBTS), Karl Landsteiner Award (1983) and the ISBT Presidential Award (2010).

Most of all we will remember him because of his charming personality, and his very warm interest in our personal lives. We are Paul very thankful for what he have meant for us, and he will be sadly missed by all who knew him.

28th Regional Congress of the ISBT

In conjunction with the National Congress of the Chinese Society of Blood Transfusion



ISBT
GUANGZHOU
2017

Guangzhou, China, November 25 - 28, 2017

We are looking forward to welcoming you to the 28th Regional congress of the ISBT in Guangzhou, China. The city is the third largest in China and the capital city of Guangdong Province located along the southern coastline of China.

The congress will take place at the Baiyun International Convention Center, which lies below the Baiyun mountain. There are trails from the convention centre to the top of the mountain, where there are great views of the city.

Join us

Attending the congress will put you into contact with a large number of transfusion medicine specialists from the Asia Pacific region. You will have an opportunity to meet fellow delegates during refreshment breaks and at the social events. The congress will give you a great opportunity to network and to discuss the successes that you enjoy and the challenges that you face in your everyday working lives. It offers great value for money with morning and afternoon refreshment breaks as well as lunch included in the price.

Key dates

- Deadline for Abstract Submission: August 3, 2017
- Information on Abstract Allocation: Week of September 4, 2017
- Deadline Early Registration Fee: October 5 2017
- Deadline Late Registration Fee: November 9, 2017
- Onsite fee applies as of November 10, 2017

The scientific programme

The programme starts with a Chinese day on Saturday November 25. The main programme commences on Sunday November 26 and runs until Tuesday afternoon November 28. It consists of a mixture of plenary sessions and two parallel tracks; an education track where delegates will learn the basics of various topics and a scientific track where the latest science will be shared.

Plenary sessions

The first plenary focuses on how different models can help us to understand TRALI with a presentation given by Lin Fung. The second plenary is a clinical session examining platelets including the impact of the CD36 antigen, Multifaceted regenerative lives of expired platelets, and clinical trials on frozen platelets. The third plenary session looks at thalassaemia from the transfusion laboratory and clinical aspects. The final plenary session will be on different features of transfusion transmitted infectious diseases including Roger Dodd speaking on pathogen inactivation, Yong Shui Fu speaking on HBV infection and Yee Sin Leo on Arboviruses.

Education sessions

The education sessions will include sessions on donors and donation including managing young donors and managing donors in difficult circumstances, leadership including transfusion leadership in the hospital and blood centre, haemovigilance with presentations from Japan, China and Korea, transfusion education with several short presentations from the West Pacific region, quality management, the role of the transfusion practitioner and the role of molecular testing in the transfusion laboratory with three presentations on the practicalities and pitfalls and basics of molecular testing.

Scientific sessions

The scientific sessions will mainly consist of one invited speaker followed by a series of oral presentations chosen from the submitted abstracts by a review committee. The sessions are related to haemovigilance, clinical transfusion, hepatitis, culturing red cells, next generation sequencing, screening for transfusion transmitted infections and managing blood donation in difficult settings. The programme includes an immunohaematology session on novel technologies with three invited speakers.

For more information on the scientific programme, abstract submission, registration, exhibition, social programme, and accommodation go to www.isbtweb.org/guangzhou.

We look forward to welcoming you in Guangzhou.

Time	Sunday November 26	
08.30 - 09.15	Opening ceremony	
09.15 - 10.00	How different models can help us understand TRALI	
10.00 - 10.30	Refreshment break	
10.30 - 12.00	Parallel 1 - Academy: Young donors	Parallel 1 - Academy: Young donors
12.00 - 13.30	Lunch Break	
13.30 - 15.00	Parallel 3 - best abstracts	Parallel 4 - Scientific: Immunohaematology - Novel technologies
15.00 - 15.30	Refreshment break	
15.30 - 17.00	Parallel 5 - Academy: transfusion leadership	Parallel 6 - Scientific: Clinical Massive transfusion haemorrhage protocols
17.00	Poster session	

Time	Monday November 27	
08.30 - 10.00	Plenary 2: Transfusion support for haemoglobinopathies in the region	
10.00 - 10.30	Refreshment break	
10.30 - 12.00	Parallel 7 - Academy: Transfusion education	Parallel 8 Scientific - TTID: Hepatitis
12.00 - 13.30	Lunch Break	
13.30 - 15.00	Parallel 9 - Academy: Quality management in the laboratory	Parallel 10 - Scientific: Cellular therapies: Culturing red blood cells
15.00 - 15.30	Refreshment break	
15.30 - 17.00	Parallel 11 - Academy: Haemovigilance	Parallel 12 -Scientific Immunohaematology: Next generation sequencing
19.00 - 22.00	Congress Party	

Time	Tuesday November 28	
08.30 - 10.00	Plenary 3: Platelets	
10.00 - 10.30	Refreshment break	
10.30 - 12.00	Parallel 13 - Academy: The transfusion team: role of the transfusion practitioner	Parallel 14 - Scientific: TTID screening
12.00 - 13.30	Lunch Break	
13.30 - 15.00	Parallel 15 - Academy: The role of molecular testing in the transfusion laboratory	Parallel 16 - Scientific: Donors and donation
15.00 - 15.30	Refreshment break	
15.30 - 17.00	Plenary session 4 - TTID: Pathogen reduction, Occult Hepatitis B, and Mosquito borne diseases	
17.00	Closing ceremony	

www.isbtweb.org/guangzhou

News from the ISBT Central Office

The ISBT Forum

The ISBT Forum was launched in December 2016 as a way to connect all members of ISBT. Many members of ISBT have already created an account and posted their first message on the Forum.

The Forum is an ideal way to connect with colleagues, and to build your international network. The Working Parties of the ISBT are also present on the forum, offering professional help to your questions. Whether you are looking for suggestions for literature, or need practical help solving an issue in your blood service, feel free to ask your question on the ISBT Forum.

You can find the forum at forum.isbtweb.org. Creating an account is simple, click on the login-button in the top-right corner and enter your details, then wait for the confirmation email. Once you have confirmed you are able to view and comment on nearly all topics.

New: The ISBT App

Download the new ISBT app in the Google PlayStore and Apple iStore. Before, ISBT would launch a separate app for each ISBT Congress. As of May 1, the Society offers one mobile platform from where you can access all ISBT congresses: The ISBT App.

This general app for the ISBT links to a separate sub-application where you can find all information you need for a successful ISBT Congress. These are similar to the previous congress apps (when they were still available as separate apps), and are only accessible via the general ISBT-app. These sub-apps include information about speakers, downloadable abstracts, a map, a timetable, and the option to connect with fellow delegates. You can also use the app to create a personal itinerary for the congress and to rate and interact with sessions. On the main Society app you will find basic information about ISBT, the Working Parties, and the ePortal. Access to the ePortal is not (yet) available via the app. Within this app you will find special content sections for each upcoming ISBT Congress. You can choose to download these congress apps, which are built into the overarching Society-app. If you would like to access the congress apps offline you can download the content to your phone. Be sure to allow push-notifications from the app, to make sure you receive real-time updates about schedule changes or other important notifications, should they appear.

Find the app in the app-store searching for 'ISBT' and the ISBT logo (white on a red background). If you have any comments on the app please contact wingerden@isbtweb.org.

Give your testimonial

The ISBT thrives because of the effort of members. And in return, the society organises various ways for members to develop and connect. Despite meeting members at ISBT congresses or Academy events, we would love to hear from our members what they value most about ISBT. We are implementing a new item on our website, showing the diversity of our membership body through a display of different testimonials. You can already find some testimonials from Mickey Koh, Morten Bagge Hansen and others on the website. We would like to add your testimonial! If you do not mind having your picture used on our website, and potentially other places to promote the Society, we invite you to provide your testimonial in the form of a (high quality) headshot picture and a personal quote about your experience as a member of ISBT (one short sentence). We look forward to receiving your testimonial via

communication@isbtweb.org. Of course, you are also invited to come to the ISBT Booth at one of our congresses to provide your testimonial there.

Thank you!

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Webinars

ISBT organizes monthly webinars on various Transfusion Medicine-related subjects. These webinars are short educational talks that are given by experts of their fields. The webinars are open for ISBT members only. To be able to join, one needs to register first. During the talk, attendees have the opportunity to ask questions by typing them in the question box or by raising their hands. The questions are answered at the end of the presentation. The webinars are recorded and uploaded to the webinars box in the featured content page of the Academy ePortal

Speaker	Title	Date	Time
Jill Storry	Blood Group Terminology – Back to Basics	Available on the ePORTAL	
Masja de Haas	Haemolytic disease of the fetus and newborn	Available on the ePORTAL	
Nicole Thornton	Back to Basics – Red Cell Alloantibody Identification	Available on the ePORTAL	
Rick Kapur	Update on TRALI pathogenesis	Available on the ePORTAL	
Dirk de Korte	Use of Platelet Rich Plasma	Available on the ePORTAL	
Lin Fung	Basics of Neutrophil antigen and antibody testing	July 5	10:00 CET
Ang Ai Leen	Platelet Refractoriness	August 14	10:30 CET
Hany Kamel	Haemovigilance	September 6	18:00 CET
Gustaf Edgren	Big data in Transfusion Medicine	October 11	15:00 CET
Evan Bloch	Emerging Infections and Blood Safety in the 21st Century	November 1	15:00 CET
Vip Viprakasit	Thalassemia – Back to basics	December 6	10:00 CET

Please note that the times of the webinars are shown in Central European Time (CET).

Personal Reflections

The series Personal Reflections includes 5 talks where well-known people in the field of Transfusion Medicine including Kathryn Maitland, Mickey Koh, Johanna van der Bom and Christian Seidl share their personal stories and views on their fields of interest. In addition to the talks there are 3 interviews with experts who have conversations with young professionals on how difficulties or successes they experienced shaped their career paths and the way they see the past, present and the future of Transfusion Medicine.

The talks and interviews are released once every three weeks. To access the Personal Reflections please visit the covered events on the Academy ePortal.

Speaker(s)	Type	Release date
Judith Chapman	Talk	10-02-2017
Mike Busch - So-Yong Kwon	Interview	01-03-2017
Kathryn Maitland	Talk	22-03-2017
Gustaf Edgren - Ruchika Goel	Interview	12-04-2017
Mickey Koh	Talk	03-05-2017
Miguel Lozano - Behnaz Bayat	interview	24-05-2017
Johanna van der Bom	Talk	14-06-2017
Christian Seidl	Talk	05-07-2017

ISBT Endorsement of educational courses

The ISBT Academy supports educational activities including meetings, trainings and workshops financially or by the use of the ISBT logo. In addition to these two current forms, ISBT launches a new form of support, the Endorsement of educational courses. This form of patronage aims to promote high quality programmes and recognise training providers that are delivering an excellent level of learning for those who wish to specialize in the field of Transfusion Medicine.

Applications should be filled in online (<http://isbtweb.org/knowledge-education>) and need to include all requested supporting information.

Social media posts

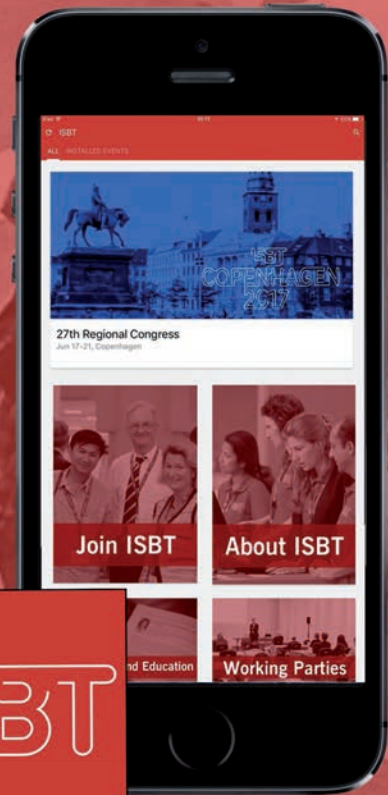
On Thursdays and Sundays relevant scientific findings (#RecentStudies) are shared on the Facebook and Twitter page of the ISBT. Have you read an interesting article that is relevant to the field of Transfusion Medicine and you would like to share on our social media? Please send an email to science@isbtweb.org.

The new ISBT APP

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Search for ISBT and select the red icon with a white ISBT logo



Advertorial

Erytra Eflexis® – the latest advancement in Grifols scalable blood typing solutions that easily adapts to different workflow needs in the laboratory.

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Erytra Eflexis is the outcome of Grifols commitment to improving blood transfusion safety and its mission to improve the health and well-being of people worldwide.

Note: Product registration and availability vary by country. Please ask your local Grifols representative for further information.

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Raffaele Pecora
Avis Campania president, Italy



Miguel Lozano
Department Hemotherapy and
Hemostasis, Barcelona University
Clinic Hospital, Spain



Karin Magnussen
Clinical Immunology/Blood
Centre, Copenhagen University
Hospital, Denmark

The VII International Congress on Blood Donation and Transfusion Medicine in Naples



On March 18th, international speakers, distinguished guests and participants gathered in the beautiful Castel dell'Ovo for the event 'Blood donation and transfusion medicine' that was organized by the Association of Voluntary Italian Blood Donors (AVIS) which is the major Italian non-profit and charitable organization for blood donation, bringing together over a million voluntary unpaid blood donors across Italy. Apart from the scientific program, there was a special moment: the inauguration of the mobile plasmapheresis. Pasquale Pecora opened the congress on behalf of the Avis Campania president Raffaele Pecora and introduced the Mayor of Naples and other representatives and guests. The meeting was supported by the Campania Region governments, the Naples city council, ISBT and the International Federation of Blood Donor Organizations (IFBDO).

Session I Quality of hemocomponents and plasma

Dragoslav Domanovic from Slovenia had a kick off state-of-the-art presentation and gave an overview on current highlights and emerging infections relevant to blood transfusion including Hepatitis E and Zika virus. If there is one country struggling with Zika virus, it is Brazil. Silvano Wendel from Brazil presented the implications and measures that were taken in Brazil. The Zika virus threat is an example of the importance

of vigilance, which was discussed by Jo Wiersum, Sanquin and TRIP Foundation in the Netherlands, who gave an outline of the vigilance system and highlighted the great achievements of international collaborations, such as the Notify Library or the 2016 Donor Haemovigilance Case Validation Exercise between ISBT, AABB and IHN.

Another important part of the meeting was related with to plasma donation. First, Dr. Miguel Lozano from Spain, reviewed the regulatory and technical aspects of plasma donation by apheresis and the impact that repeated plasmapheresis may have on donor health. After Dr. Paul Strengers from the Netherlands discussed the European dependence on plasma donated in United States of America for preparing plasma derivatives that European countries still need. He emphasized the importance of donor organizations in increasing plasma donation in Europe to cover the current and future needs of mainly, immunoglobulins and albumin.

Session II Blood donation and donors

The second session was started by Peter van den Burg from Sanquin Amsterdam who is chair of the ISBT Working Party Donors & Donation. Peter gave an introduction about donor complications and referred to other donations such as stem cells and organs. This made us realize that the acceptance of complications is dependent on the scarcity of donations. Peter paid attention to long term complications that was followed up by Giuseppina Facco, transfusion service, Turin Italy. Giuseppina presented recent results of long term outcomes in donor, important data that need further follow up. The last speaker in this session was Karin Magnussen who works at Copenhagen university and FIODS. Karin presented the algorithm applied in Blood Centre of Copenhagen. With ferritin testing and iron supplementation they have been able to

reduce the amount of blood donors with low ferritin (< 15µg/L) from 16% to 1.9% and also hemoglobin deferral was lowered to around 1%. The program has also let to diagnosis of more than 80 donors with haemochromatosis.

Session III Molecular blood group and serology

From donors and donation back to the basis of transfusion, the blood groups. Martin Olsson, Lund university Sweden, presented a ‘State of the art’ overview about new insights into infectious disease and blood group antigens. These new discoveries could help us finding new therapeutic strategies. Martin gave the word to Jill Story from the Lund University, who talked about the management of rare donors And underlined that the implementation of modern technologies in genotyping, offers increasing possibilities to screen and find rare donors.

Session IV National plan blood and plasma 2017-2020

The last session was the closure of the day and was presented by Raffaele Romano, Avis Campania director. Romano presented the project “Plasma in Campania

2017-2020”. Campania is the Italian province of which Naples is the capital. It has currently 6 million people, approximately, 10% of the total population of Italy. In Campania the production of plasma for transfusion is widely self-sufficient not being so for the plasma derivatives. For instance, in the case of the albumin, Romano presented data suggesting that about 60.000 liters of plasma for fractionation would be needed to cover the current need of albumin in Campania, i.e. about 250 g of albumin per 1000 inhabitants per year. In 2016 about 27,000 liters of plasma were sent to the industry for fractionation. In order to reach self-sufficiency in plasma derivatives, Romano presented the plan to introduce new guidelines in order to optimize the use of plasma derivatives and to increase the number of plasmapheresis in the region. The plan will progressively increase the number of plasmapheresis from 5,000 plasmapheresis donations in 2017 to 20,000 plasmapheresis in 2020. An essential part to reach this goal is the two plasmapheresis blood mobiles that were presented during the meeting and will allow to extent the plasmapheresis not only in Naples but in the whole the Campania region.





Frederik Banch Clausen
Conference President

Conference Report of The 3rd International Meeting on Cell-Free DNA, cfDNA2017

The 3rd International Meeting on Cell-Free DNA, cfDNA2017, was held in Copenhagen, Denmark, April 6-7. The scientific topics were clinical applications of cell-free DNA.

The meeting was a great success. The presentations were excellent and provided new insights into the field of cell-free DNA. Topics included cancer diagnostics, noninvasive prenatal testing of fetal antigens in clinical immunology and of fetal aneuploidies as well as microdeletions in prenatal care. Furthermore, new techniques were presented. Topics also included the detection of cell-free DNA for noninvasive monitoring of transplantations and prediction of organ rejection. Analysis of cell-free DNA was discussed for DNA, RNA, micro RNA and methylations sites.

There were 14 talks, 6 oral presentations from the audience, and 22 posters. In addition, there was the main sponsor talk from Illumina and a panel discussion from the sponsors. Three scientists were given a travel grant and a poster winner was found by a jury. The meeting was attended by 155 people from 22 different countries. Dr. Geoff Daniels was the guest of honor.

Day one opened with an interesting talk by Dr. Jill Story on blood groups systems followed by talks on noninvasive fetal RhD genotyping where the new NICE recommendations were presented from England. Then the topic moved to biology of the placenta with exciting

new knowledge of the origin of cell-free fetal DNA. This was followed by the use of noninvasive testing of cell-free DNA to predict organ rejection in transplantation. After the poster session, a session was dedicated to cancer diagnostics.

Day two was focused on non-invasive prenatal diagnosis and testing in the field of prenatal care as presented by Dr. Diana Bianchi, Prof. Lyn Chitty, and Prof. Peter Benn. Lastly, Prof. Rossa Chiu presented new and exciting techniques for detection of cell-free fetal DNA. Both days ended with three oral presentations from the audience. We thank all participants for their excellent contribution to the meeting.

The meeting was sponsored by Illumina, Qiagen, Covaris, Roche, and Natera, with six additional exhibitors. The meeting was further supported by The Center of Diagnosis at the Copenhagen University Hospital, The Danish Society of Clinical Immunology, The Danish Society of Medical Genetics, The Danish Fetal Medicine Society, The Danish Cancer Society, and ISBT.

We sincerely hope that all attendees had a great meeting and found opportunity to discuss science with their international colleagues. We hope the meeting was educational as well.

We will meet again for the cfDNA2019 meeting.



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Yuyun Soedarmono

Chairman of Indonesia
Association of Transfusion
Medicine, Jakarta, Indonesia

Strategies in fulfilling the demand for blood in Banda Aceh

Banda Aceh is a provincial city of Nangroe Aceh Darusalam (NAD) located on the top tip of Sumatera island of Indonesia with 254,904 population^[1]. The education level and quality in NAD was lags far behind other provinces in Indonesia^[2]. The blood centre of the city was destroyed by the devastating 2004 tsunami but rebuilt by the Australian Red Cross and supplies 16 hospitals in the area with blood. The blood centre recruits blood donors and collects, processes, stores and distributes blood to hospitals^[3]. The demand of blood is increasing every year from 28,173 units in 2012 to 39,015 units in 2016, and only 63.3 to 83.8% of blood request can be fulfilled (Figure 1). The estimated demand in Banda Aceh is only 5,098 blood units and we expected that all blood requested by 16 hospitals in Banda Aceh would be fulfilled. Therefore the remaining blood that was not used in the city were distributed to four adjacent areas, which covered more than 50% of their blood demand.

Despite the increased need of blood motivating people to donate blood is a challenge. There were two main problems in blood donation identified: ⁽¹⁾ little knowledge and understanding of blood donation within the population, especially among young people between 17 to 30 years old and ⁽²⁾ distrust and dissatisfaction of population on availability of blood when needed. A recent study that was conducted in Ethiopia demonstrates that the level of knowledge, age and access to information influenced willingness to donate blood.^[4] Another study in Nepal found that more than 50% of students were not willing to donate blood due to the assumption that their blood will be sold to patients waiting for transfusion^[5]. According to our observation young people in Banda Aceh also believed that patients were charged for blood and therefore they decided to donate blood only upon being payed. The distrust and dissatisfaction of population on availability of blood when needed

caused the decrease number of repeat donors from 14,178 in 2013 to 10,274 in 2014 (27.5%) such as shown by Figure 2.

To cope with these difficulties, the Banda Aceh Blood Centre implemented two strategies: ⁽¹⁾ spreading information of blood donation to young people through programs known as “Blood Centre Goes to School”; “Blood Centre Goes to Campus”; “Blood Centre Goes to Mosque”, and ⁽²⁾ providing open information of blood stock that can be accessed through Blood Centre Call Centre and the “Home for Blood Donors” internet application. The first strategy aimed to improve the understanding of patients and donors about the benefits of blood donations. Presentations were given and open dialogues were initiated with students at schools, campuses and mosques. Shaz’s study reveals that educating African-American students improved the knowledge of safety and comfort of blood donation, and delivered voluntary new blood donors.^[6] The second strategy was intended to show the actual blood supply to regain the trust of people. The call centre can be accessed 24 hours 7 days so those who need blood can ask the blood centre about the availability. If there is no blood available, the blood centre immediately invites the suitable donors to donate blood. The application “Home for Blood Donors” consists of all information related to blood donation and update information of bloodstock and can be downloaded to mobile phones.

After one year of implementation of these two strategies, the result was a 29.7% increase in number of repeat donors, from 10,274 in 2014 to 13,333 in 2015. The increasing number of repeat donors steadily continued in 2016. Regular evaluation is still desired to assess the effectiveness of strategies to increase the number of blood donations.

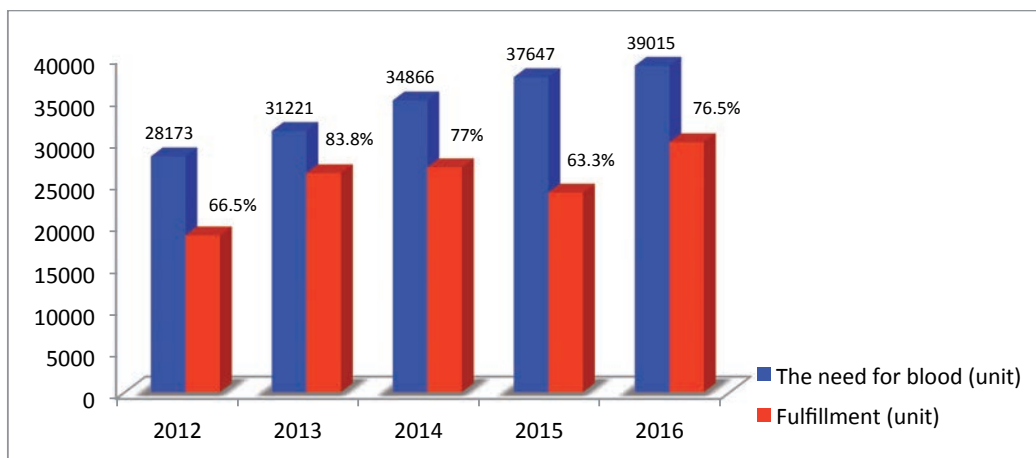


Figure 1. The need for blood and its fulfillment in Banda Aceh Blood Centre in 2012-2016

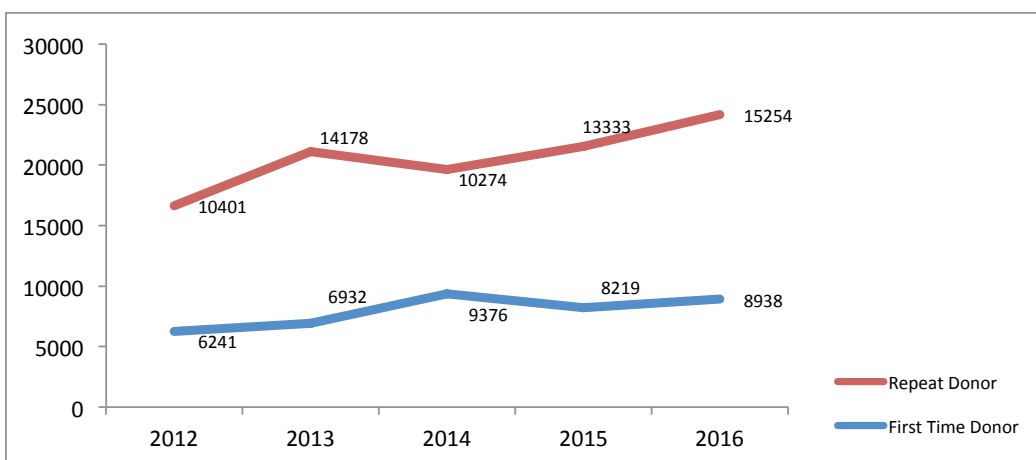


Figure 2. The Number of First Time and Repeat Donor in Banda Aceh Blood Centre in 2012-2016

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Richard J Benjamin
ISBT Board Representative
for North America

Shifting focus in the U.S.

With a new administration in the US, changing priorities and focus will almost certainly impact Transfusion Medicine. The nominated head of the Food and Drug Administration, Scott Gottlieb MD, has declared the safety of the blood supply as one of his major priorities, an encouraging start that is offset by proposed drastic cuts to the budgets of the National Institutes of Health and Department of Health and Human Services. As we contemplate the possible impact, it would be wise to note the remarkable changes during the prior administration and the threats faced by the US blood supply.

From 2008 to 2016, the cost of blood products to US hospitals declined by ~ \$1 billion, as patient blood management policies reduced blood usage by about 30% and the cost per unit to the hospitals decreased with price competition between blood centers. Many centers have merged driven by economic necessity, leaving a leaner and less resilient infrastructure. At the same time, blood safety was threatened by a stream of infectious threats. The danger of a new infectious retrovirus, XMRV, held our attention until that was proven not to be a threat after much effort and expenditure of research resources. In contrast Zika, Ebola, Chikungunya, Dengue, MERS-CoV, pandemic influenza, and SARS viruses, as well as Babesia, were and are all very real threats to patient safety in what is becoming an annual parade of emerging pathogens that may be transmitted by blood. Many of these threats have led to changes in donor deferral policies in an attempt to prevent blood collection from infected donors, as an inexpensive but not necessarily very effective countermeasure. During these 8 years, mandated testing for *T. cruzi* (Chagas' disease) as well as nucleic acid testing for hepatitis B and zika virus has been implemented, and pathogen inactivation technologies for plasma and platelets, as well as point of issue testing for bacteria have been FDA approved for use but not mandated.

Similarly, donor safety and deferrals are now recognized as more serious issues. There is clear evidence that regular blood donation can sometimes cause severe iron deficiency and a growing consensus that US blood collectors have a level of responsibility to prevent and treat iron loss. Blood donation by men-who-have sex-with-men (MSM) remains a source of contention. In the US, an outcry after many gay men were turned away from blood donation after the 2016 Orlando night club mass shooting, led the FDA to publish a request for comments regarding potential blood donor deferral policy options and the feasibility of moving from the existing time-based (one year) deferrals related to risk behaviors to alternate deferral options, such as the use of individual risk assessments. Canada recently held a research meeting bringing together national and international experts on this issue. The possibility that enhanced donor questioning with or without the use of pathogen inactivation technologies or selective testing might allow North American blood collectors to move away from donor questions based on sexual preference will likely be addressed over the next eight years.

Taken together, it is clear that the Transfusion Medicine landscape will continue to be dynamic and will require energy and resources to determine policy and maintain a constant source of safe blood in the US. It is unclear how political changes will impact these realities; nevertheless all indications are that we will do so with fewer resources and higher cost constraints than we have in the past. There is still time to influence budget cuts and to make our case for the sake of the patients we serve.



Eugene Zhiburt
President, Coordinating Council
of Blood Services of CIS Member
States

Kazakhstan Blood Service Development

On April 7th, 2017 the Republican Scientific and Practical Conference “Actual Issues of the Blood Service of the Republic of Kazakhstan” was hosted in the Scientific and Production Center of Transfusiology in Astana.

Representatives of WHO, transfusiologists from the Russian Federation, Germany, Belgium, and Turkey, regional blood centers of Kazakhstan, hospitals, and public associations participated in the event, where the results of the blood service of the Republic of Kazakhstan in 2016 were presented.

There are 464 hospitals in Kazakhstan that provide blood transfusions. The Scientific and Production Center of Transfusiology provides blood and its components to 22 municipalities. In 2016, there were 202,000 people who became donors in Kazakhstan. The total number of donations of blood and its components was 265,000. In the structure of donations, the proportion of donations of cells increased and amounted to 5% of the total number, the proportion of blood donations was 84%, and the part of plasma donations was 11%.

In total, 67% of red blood cells have been leukodepleted. Donations of Apheresis platelets on average in the republic in 2016 increased by 9% and amounted to 70%. Pathogen inactivated platelet concentrates increased, and this indicator in the republic was 73%, compared to 66% in 2015.

In 2016, the Ministry of Health of the Republic of Kazakhstan carried out work to improve the financial status of the blood service of the regions, many of which received additional funding to ensure the necessary quality and safety of blood components. New financial opportunities will allow the mandatory 100% pathogen inactivation of platelet concentrates, and expand the use of other modern technologies for treating blood donations. It should be especially noted that the Blood Service of the Republic of Kazakhstan is the first CIS and Central Asian country to introduce 100% pathogen inactivation of platelet concentrates, and this step provides the maximum level of safety for patients against viral and bacterial infections transmitted by transfusion.

As part of the seminar program, it was possible to get acquainted with other aspects of the regional blood service, the draft algorithm for diagnosing brucellosis in the blood service, and the new activities of the Republican Society of Transfusiologists of Kazakhstan.

Participants shared the experience of different countries in the organization of screening of donor blood for markers of transfusion-transmitted infections.



Kieran Morris
Medical Director Northern
Ireland Blood Transfusion
Service

European School of Transfusion Medicine

Appropriate Use of Blood Components Conference
Riddel Hall, Belfast, 22 - 24 March 2017

The Northern Ireland Blood Transfusion Service under the auspices of the European School of Transfusion Medicine (ESTM) hosted an international conference in March of this year. The Clinical Transfusion Working Party of the ISBT, Dr Vincenzo de Angelis and Dr Cynthia So-Osman were involved in drawing up and agreeing the final programme. The theme of the conference was appropriate use of blood components, in particular red cell and platelet components. Approximately 100 delegates from 13 European countries attended at Riddel Hall, Queens University Belfast.

The first day was devoted to appropriate use of red cell components. Dr Kieran Morris presented on the physiology of the erythrocyte, the storage lesion of banked blood and the rational basis for red cell transfusion. Dr Kathryn Maguire detailed clinical practice guidelines as applied in Northern Ireland and evolving lower thresholds for red cell transfusion over two decades.

Dr Simon Stanworth highlighted emerging clinical trial evidence for appropriate use of red cells including Cochrane systematic reviews and meta-analyses.

Dr Damien Carson, Ms Aine McCartney and Dr Susan Atkinson from the Northern Ireland Transfusion Committee described the implementation of change and appropriate use of blood and blood components over 15 years. Their presentations were linked and described a systematic quality improvement process, what makes an effective haemovigilance network and case studies highlighting successful implementation of change, identifying deficiencies and targeting areas for improvement.

The afternoon session included a vignette of an unusual case of agglutination and haemolysis due to auto anti-Wrb antibody and examples of best practice in patient blood management which included clinical audit and improvement, appropriate use of group O Rh D negative

red cell components, what makes an effective hospital transfusion team and an initiative related to positive patient identification and reduction in wrong blood in tube errors.

The day closed with a refreshing session on licensing, regulation and accreditation of blood establishments and hospital blood banking delivered by Queen's University Belfast medical students followed by case studies on hospital blood banking, laboratory information management system and how the hospital blood bank supports the regional trauma service.

The second day was devoted to appropriate use of platelet components. The same format was followed with the opening lecture on the role of haemostasis and thrombosis (Dr Gary Benson) followed by current clinical practice guidance for platelet transfusion (Dr Ni Ni Aung) and emerging clinical trial evidence for appropriate use of platelets (Dr Simon Stanworth).

The afternoon session included a vignette on international aspects of blood grouping. There was also a session on blood safety, a multifunctional approach to patient safety in transfusion medicine and patient blood management in the Netherlands (Dr Cynthia So-Osman) and clinical audit and improvement in the Friuli Venezia Giulia region of Italy (Dr Vincenzo de Angelis).

The third day included vignettes on importance of visual inspection on platelet components and discerning the diagnoses of transfusion related acute lung injury and transfusion associated circulatory overload.

The concluding lecture on transfusion medicine on the edge highlighted ten aspects of transfusion which are currently topical and relevant verging from pathogen reduction technology to emerging blood borne viruses to relaxation of donor deferral rules for men having sex with men.

A book of proceedings will be published and Microsoft PowerPoint presentations circulated to all delegates.



Tonderai Mapako
Planning, Information and
Research Manager, National
Blood Service Zimbabwe



Zimbabwean students graduate with PhDs

The NBSZ long time employee who joined the Service in 2001, Dr Tonderai Mapako, and Nyashadzaishe Mafirakureva from Zimbabwe successfully defended their PhD thesis on Friday 9 December 2016.

The doctoral thesis of Dr Mapako focussed on the risk modelling of transfusion transmissible infections. Blood transfusion can be a lifesaving medical treatment, especially in sub-Saharan Africa. However, there is inherent risk of transfusion transmissible infections (TTIs), which can be minimized by appropriate blood donor selection and testing of blood. Despite these safety interventions, zero-risk is not achievable because of the remaining (residual) risk, hence the need for risk modelling as done by Dr Mapako.

In the thesis Dr Tonderai Mapako explored the HIV dynamics in the general and blood donor populations in Zimbabwe. This allows the identification of low-risk populations for blood donation purposes. He used three methods for the estimation of the risk of transmitting HBV, HCV and HIV. Comparable results were obtained and this gives confidence on their use for blood safety decision-making in Zimbabwe. The high HBV burden in Zimbabwean blood donors was a striking result and followed by HIV and HCV. Globalisation is presenting a challenge due to travelling blood donors to risky areas. Dr Tonderai Mapako developed a novel method to estimate the risk of TTIs by traveller's, which enables authorities in blood services settings to proactively assess the traveller's TTIs risk on their domestic blood supply. A cost-effectiveness analysis of introducing individual donation nucleic acid of HBV, HCV and HIV testing in addition to serologic testing in Zimbabwe was

conducted in collaboration with another PhD graduate. The cost-effectiveness results were unfavourable on the additional testing option due to cost constraints; however, compared to high-income countries the cost-effectiveness is rather good. The thesis results indicate the need for more risk modelling studies in resource-constrained settings to optimise blood safety.

Dr Mapako is currently leading the AfSBT Research and Ethics coordination and this qualification will assist in this critical role.

In his thesis Dr Mafirakureva included studies on patients receiving blood transfusions in sub-Saharan Africa. Dr Mafirakureva analyzed the occurred adverse events and healthcare costs for patients infected with HIV and screening costs for the serology tests. In sub-Saharan Africa where there is a greater need for improvements in blood safety amid severe resource constraints, health economic evaluations are still limited. This thesis presents the health economics of blood transfusion in a resource-limited setting, with the aim of helping decision-makers understand the cost-effectiveness of introducing a blood safety measure, individual donation – nucleic acid testing (ID-NAT). In particular, it discusses the chronic challenges in the collection, availability, accessibility and quality of empirical data; and their impact in informing health economic models.

People who are interested to read the theses can send an email to communication@isbtweb.org to request the links of the theses.

2017

September 11-12
**IPFA/BCA 3rd Global Symposium on
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June 17-21
**27th Regional Congress of the
ISBT**
Copenhagen, Denmark

November 25-28
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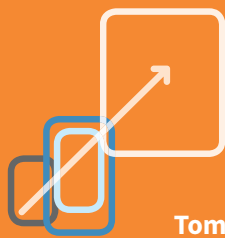
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